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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/932,234

08/17/2001

Ruben E. Salazar Cardozo

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7590

09/22/2004

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EXAMINER

WONG, ALBERT KANG

ART UNIT

PAPER NUMBER

2635

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,234

Applicant(s)

SALAZAR CARDOZO, RUBEN E.

Examiner

Albert K Wong

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/17/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. This Office action is in response to the application filed August 17, 2001. Claims 1-26 are pending.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9 and 12-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, said receiver of said repeater lacks an antecedent basis.

Regarding claim 12, lines 7-8 of the claim state that "said repeater being operable to communicate with said repeater using only uni-directional communications." This does not make sense. Does applicant intend to state that the repeater communicates with the endpoint device?

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ragle 6,195,018.

Regarding claim 1, the claimed data collection and processing device is shown as item 16; the claimed wide area network is shown as item 28; and the claimed local area network with uni-directional communications is shown generally as item 24. Thus, all the claimed limitations are shown.

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ragel in view of Shuey 5,874,903.

Regarding claim 2, the data concentrator is shown as item 22. Ragel does not teach a repeater. Shuey teaches the use of a repeater to relay data from meters in a local area network. This provides the advantage of increasing the coverage of the network by gaining access to normally inaccessible nodes. Although the relay is shown as a bi-directional unit instead of a uni-directional, it would have been obvious that where only reading is desired uni-directional unit would be simpler and cheaper as taught by Ragel. Bi-directional systems allow polling for data, but uni-directional systems require less bandwidth. It would have been obvious to combine the teachings since they are in the same field of endeavor.

Regarding claim 3, the claimed endpoint device is shown as item 20.

Regarding claim 4, the concentrator and endpoint device have been addressed above.

Regarding claim 5, the repeater and endpoint device have been addressed above. It would have been obvious to make the transmitter of the repeater and endpoint devices similar to reduce the need for parts and training. The selection of transmitters is based on range of coverage and thus, a variety of transmitters would be suitable. Using different transmitters would require support for a range of devices.

Regarding claim 6, the concentrator and repeater have been discussed above. As discussed in claim 5, using similar components provides the advantage of reduced parts and training.

Regarding claim 7, the repeater has been addressed above. A scanning receiver is conventional. A scanning receiver provides the advantage of receiving transmissions from a plurality of frequencies. Thus, more of the bandwidth is usable.

Regarding claim 8, Ragel shows a plurality of endpoint devices. The repeater has been addressed above. It would have been obvious to use a repeater for a plurality of endpoint devices to minimize the number of repeaters needed. Further, Ragel is a system that processes data in parallel. It would have been obvious to make all levels of the system with similar capability to maximize the processing speed of the system.

Regarding claim 9, the repeater has been addressed above. It would have been obvious to us a multi-channel receiver to allow simultaneous communication or to permit frequency hopping to avoid interference.

Regarding claim 10, the endpoint and repeater have been addressed above. The use of a particular message format is considered an obvious design choice since it is not critical to the operation of the system. By maintaining the same format, a repeater may be made without data processing capability with corresponding cost reduction. However, local processing improves the efficiency of the system.

Regarding claim 11, the endpoint devices and repeater have been addressed above.

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Regarding claim 12, Ragel teaches the data concentrator as item 22 and the endpoint device as item 20. Shuey teaches the repeater. See claim 2 for the reasons for the combination of the references.

Regarding claims 13-15, these limitations have been addressed in prior claims.

Regarding claim 16, Shuey teaches meters which are endpoint devices. Some meters operate as relays and thus they relay their own data as well as received data from other meters. The data is they relayed to a concentrator node such as item 18.

Regarding claims 17-18, these limitations have been addressed in prior claims.

Regarding claim 19, Ragel teaches a plurality of endpoint devices that communicate to a relay node. As discussed above, the use of multi-channel receivers would have been obvious. A multi-channel receiver allows the simultaneous reception of data from multiple sources.

Regarding claims 20-26, these claims are the method equivalent of the apparatus claimed above. Since the apparatus has been shown to be obvious, the method of using the apparatus in its intended manner would also have been obvious.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Numerous cited, but not applied art, are considered relevant to the claimed invention. They teach other configurations of networked meter reading system. Applicant is advised to consider all cited references prior to preparing a response.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert K Wong whose telephone number is 571-272-3057. The examiner can normally be reached on M-Th.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Albert K. Wong
September 10, 2004